China-USA Business Review, Jan.-Mar. 2024, Vol. 23, No. 1, 1-8
doi: 10.17265/1537-1514/2024.01.001

Impact of Phone Addiction Distress Among Selected Small and Medium Enterprises in Kiambu and Nairobi City Counties

Erastus Thoronjo Muriuki, Susan Nyokabi
Mount Kenya University, Thika, Kenya

The increasing incidence of mobile phone addiction has been considered to be related to adolescents' psychological distress and work distress. However, the underlying mechanisms of this relation are still unclear. Many employees are not able to cope with daily chores due to addiction to phone use as they continue with their work. Most employees are caught up and carried away from concentrating on core activities, hence affecting their productivity at work and also creating social-emotional distress among them. Many small and medium enterprises (SMEs) have employed youth, who are addicted to their phone use following up on their WhatsApp, TikTok, SMS, Instagram, Facebook, and emails. SMEs have been unable to have measures of control phone usage at work in order to have their employees concentrate with their work. This research is therefore motivated to bridge the gap in knowledge by analyzing the impact of phone addiction and distress among selected small and medium enterprises in Kiambu and Nairobi City Counties. The objectives of the study were to determine the extent of phone addiction among employees in SMEs in Kiambu and Nairobi City Counties, to establish various alternatives of phone addiction control measures among the employees in Kiambu and Nairobi City Counties. The target population of this study considered small and medium enterprises. The sample population size included SMEs in Kiambu and Nairobi City Counties in Kenya. The study adopted a descriptive research design and used primary data, which involved a questionnaire and interview guild from the Key informants. The findings were presented and published to provide alternatives to solve the future challenges of phone addiction psychological and social-emotional distress among employees, work-related distress, and organizational work distress. The findings reveal that respondents exhibit signs of phone addiction distress. Excessive phone use negatively affects their emotional well-being and leads to feelings of being emotionally drained. The study also uncovered a link between phone addiction and behavioral dysfunctions. Furthermore, phone addiction was found to impact organizational performance by hindering work efficiency, communication with clients, and collaboration among employees.

Keywords: mobile phone addiction, psychological and social-emotional distress, organization work distress

Background of Study

The use of mobile phones in the world has continued to grow with almost everyone capable of using a phone

Erastus Thoronjo Muriuki, Ph.D., Department of Management, School of Business and Economics, Mount Kenya University, Thika, Kenya; Ph.D. Entreprenuership, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya.
Susan Nyokabi, M.Sc., School of Business and Economics, Mount Kenya University, Thika, Kenya; MBA Marketing, Kenyatta University, Nairobi, Kenya.
Correspondence concerning this article should be addressed to Erastus Thoronjo Muriuki, Department of Management, School of Business and Economics, Mount Kenya University, P.O. Box 342, Thika 01000, Kenya.

owning one. Smartphone ownership had become increasingly more prevalent over the past decade since Apple's first iPhone smartphone device was launched in 2007 (Apple Inc., 2007). According to Twice Staff, 2018, in the United States of America, it revealed that 87% owned smartphones in United States homes and predicted that smartphone ownership could reach household TV ownership rates (96%) within five years. Smartphone addiction has been observed and has risen among many young employees. The addiction may result in unwanted consequences on their business performance and psychological well-being. According to Auter, in the year 2014, the number of mobile phone users in China reached 1.27 billion, and young adults aged 18-22 years were the largest and fastest-growing group using mobile phones. The popularity of smartphones has brought more convenience for young people and increased their chances of establishing and maintaining social circles (Auter, 2007).

At the start of 2022, there were 71.8 million mobile connections in the UK (4.2 million more than the UK population), an increase of 3.8% from 2021 (around 2.6 million). This is likely because many people will have more than one connection registered to them (i.e., personal and work phones). As of 2021, 88% of all adults in the UK had a smartphone. When broken down by age, 96% of those aged 16-24 owned a smartphone device compared to 78% aged 55 and above; the figures have increased dramatically since 2008, when only 17% of adults had a smartphone. In 2008, only 4% of people in the 55+-age bracket owned a phone, compared to 29% of 16-24-year-olds. The prevalence among British adolescents aged 11-14 was 10%. In India, addiction is stated at 39-44% for this age group. Under different diagnostic criteria, the estimated prevalence ranges from 0 to 38%, with self-attribution of mobile phone addiction exceeding the prevalence estimated in the studies themselves. The prevalence of the related problem of Internet addiction was 4.9-10.7% in Korea, and is now regarded as a serious public health issue. A questionnaire survey in Korea also found that these teenagers are twice as likely to admit that they are "mobile phone addicted" as adults. For most teenagers, smartphone communication is what they think is an important way to maintain social relationships and has become an important part of their lives (Hiley, 2023).

African Region Perspective

In African countries, smartphone adoption and usage have increased rapidly, transforming communication and social interactions. Mobile phone overuse has been proposed as a subset of forms of "digital addiction", or "digital dependence", reflecting increasing trends of compulsive behaviour amongst users of technological devices. Cell phones in Africa in general have been overwhelming and most people do not anticipate this, yet the trend continues to develop. Reports from the top cell phone providers claim that the market is expanding and with strong demands from both Asia and Africa (Virki, 2007). While smartphones offer numerous benefits, there is concern about the potential negative impact on mental health. Kenya, like other African countries, has witnessed a significant increase in smartphone usage. Studies in Kenya have explored the prevalence of phone addiction among different population groups, including students and professionals. The cell phone use in Kenya is changing lives in Kenyan. Looking at the cell phone penetration, it shows that cell phone has the potential to empower people by providing efficient access to information and enhance efficiency and ease of work. According to Shah (2007), the cell phone has a future as two-way communication tool to be used between the health authorities and the Kenyan people with cell phones to inform each other when diseases has been detected and prevent further outbreak. Cell phones are contributing to social and economical changes. Socially the cell phone is changing and creating new relationships and networks while it is used in strengthening the relationships that exist according to Fahamu (2007).

On an individual level, more problematic in everyday life may be the habit-forming nature of smartphone use (Oulasvirta, Rattenbury, Ma, & Raita, 2012). Smartphone use has, arguably, the potential to develop into an addictive behaviour, similar to gambling, which can interfere with our everyday life. Though not an official diagnosis, several researchers have demonstrated how classic addiction symptomology may be applicable in the context of smartphone overuse, including loss of control (e.g., distortion of time spent on the phone), preoccupation with the smartphone, withdrawal symptoms, and negative effects on our social and work lives (Kwon et al., 2013; Lanaj, Chang, & Johnson, 2014; Lin et al., 2015).

Statement of the Problem

Despite the many benefits attributed to the technology, concern has grown over the potential for excessive smartphone use to become phone addiction, also known as problematic mobile phone use or smartphone addiction, therefore becoming a global concern. Due to the growing concerns surrounding the recognized and unrecognized implications of smartphone use, great efforts have been made through research to evaluate, label, and identify problematic smartphone use mostly through the development and administration of scales assessing the behavior. However, in the fields of psychology and cognition, it is not the mere ownership of technological devices that is causing increased concern; it is, instead, the potential for dysfunction associated with smartphone use that is leading researchers to stress the importance of investigating the behavior. Many organizations still remain in distress and confused about how to control phone use at work and enhance productivity. While at work, many of the employees fail to concentrate, in core activity but in return find themselves carried away and get addicted to their phone use following up on their WhatsApp, TikTok, SMS, Instagram, Facebook, and emails. SMEs are unable to have measures of control personal phone usage at work in order to have their employees concentrate on their work. Many organizations have tried to deny access to phone use during working hours but it has proof that it has brought more distress to workers. The study focused on psychological and behavioral dysfunctions related to smartphone use as well as probe the potential employee's problematic smartphone usage that they may occupy within the jurisdiction work. In addition, the study measured problematic mobile phones and addiction. This study, therefore, is motivated to analyze the impact of phone addiction distress among selected small and medium enterprises.

Objectives of the Study

The main objective of this study is impact of phone addiction distress among selected small and medium enterprises in Kiambu and Nairobi City Counties.

Theoretical Review on Phone Addiction and Productivity

Recently Moretta, Buodo, Demetrovics, and Potenza (2022) published a detailed review on the problematic use of smartphones and the internet. It was suggested to theoretically integrate smartphone-related problematic behaviors with internet problematic behaviors as, in this way, behavior can be focused on and not the device itself. In 2001, Davis proposed a model on the cognitive-behavioral model of pathological or problematic internet use (PIU). In his model, there are two components that act: One is distal, namely the individual's psychopathology, and the other is proximal, i.e., maladaptive cognitions associated with internet usage. In 2010, Caplan reviewed Davis' 2001model and included some cognitive/behavioral variables, such as the preference for online social interactions, related to negative outcomes associated with internet and smartphone use. In his model he

specifically found that communicating through a device reduced the distress triggered by face-to-face social interactions but the model led to defective self-regulation. Such poor self-regulation would in turn generate negative consequences in the lives of people. After this model, with respect to problematic mobile phone use, Kwang, Woo, and Kim (2012) found that compared to self-esteem and self-efficacy, self-control is the most significant predictor of pathological mobile phone use. In their reviewed model, Brand, Young, and Laier (2014) proposed that impaired functioning of prefrontal control mechanisms would be associated with defective self-regulation and coping strategies, which would lead individuals to turn to the online world. People with low levels of executive functioning are vulnerable to intermittent reinforcement principles connected to internet-related activities.

According to Csikszentmihalyi (1992), smartphones can distract us to a point where we are unable to achieve a state of flow at work. Flow describes a state in which we are fully absorbed by an activity, forgetting about space and time, whilst being very productive. To achieve a state of flow two important prerequisites must be met. First, there must be an even match between a person's ability and the difficulty of a given task. In addition—and this is where smartphone use may play a role—achievement of flow requires several minutes of full, unbroken, concentration. To remain in this state, one must maintain this concentration of focused attention on the task at hand. Even brief interruptions may undermine an individual's achievement of the flow state. He also found that interruptions as brief as 2.8 s disrupted participants' flow of concentration and led to increased errors on a sequence-based cognitive task (Alton, Ciechanska, & Meikle, 2014). Another model, the Interaction of Person-Affect-Cognition-Execution (I-PACE), proposes that PIU behaviors may be explained by looking at interactions between predisposing factors (e.g., impulsivity, anxiety, depression, general distress), moderators (e.g., coping style, self-regulatory capacities, and internet-related attentional and cognitive biases), and mediators such as reduced inhibitory control in combination with reduced executive functioning and diminished decision making (Lim, 2018).

Research Methodology

This study adopted a descriptive research design. Kothari (2004) defines a research design as the conceptual structure in which the study is carried out; it describes the plan for data collection, measurement, and analysis. The study targeted 500 employees from selected small and medium enterprises in Kiambu and Nairobi City Counties. Stratified random sampling and a sample of 30% were used in the study. According to Mugenda (2003), a sample of 30% is good enough to represent a target population; therefore, the study's sample size was 150 employees. The unit of analysis included employees from the selected small and medium enterprises in Kiambu and Nairobi City Counties. The study adopted both primary and secondary data with open and ended questionnaires to provide quantitative and quantitative analysis. Data were coded and then cleaned to ensure consistency. Data were collected from selected small and medium enterprises in Kiambu and Nairobi City Counties respondents and the response rate was 80.7%. Descriptive and inferential statistics were adopted to analyze the data.

Findings

The study obtained response from 138 respondents out of the sampled 150 achieving a response rate of 92%. The findings were analysed through mean and standard deviations.

Table 1

Phone Addiction Distress

Phone addiction distress statements	Mean	Std. dev.
I feel the need to check my phone frequently throughout the workday.	4.18	0.454
I often use my phone for personal activities during work hours.	4.16	0.346
I feel anxious or uneasy when I'm unable to access my phone.	4.12	0.569
I feel a sense of relief when I finally check my phone after a period of not using it.	3.98	0.259
I spend more time on my phone at work than I initially intend to.	3.66	0.771
I am used to TicTok, WhatsApp, Instagram, Facebook, and Twitter.	4.18	0.454

The respondents agreed that they feel the need to check their phone frequently throughout the workday (mean = 4.18, std. dev. = 0.454), are used to TicTok, WhatsApp, Instagram, Facebook, and Twitter (mean = 4.18, std. dev. = 0.454), and often use their phone for personal activities during work hours (mean = 4.16, std. dev. = 0.346). In addition, the respondents agreed that they feel anxious or uneasy when unable to access their phone (mean = 4.12, std. dev. = 0.569), feel a sense of relief when they finally check their phone after a period of not using it (mean = 3.98, std. dev. = 0.259), and spend more time on their phone at work than they initially intend to (mean = 3.66, std. dev. = 0.771).

Table 2

Phone Use and Psychological and Social Emotional Distress

Phone use and psychological and social emotional distress	Mean	Std. dev.
I find it difficult to control the amount of time I spend on my phone.	3.82	0.743
My phone use leads to a decrease in my ability to focus and concentrate.	2.08	0.519
My phone use has a noticeable impact on my mental well-being.	4.06	0.475
Excessive phone use negatively affects my overall mood and emotional well-being.	3.54	0.825
Using my phone for extended periods causes me to feel emotionally drained.	4.14	0.561
I find it challenging to relax and unwind after spending time on my phone.	3.35	0.129

The respondents agreed that using their phone for extended periods causes them to feel emotionally drained (mean = 4.14, std. dev. = 0.561) and that their phone use has a noticeable impact on my mental well-being (mean = 4.06, std. dev. = 0.475). The respondents further agreed that they find it difficult to control the amount of time they spend on their phone (mean = 3.82, std. dev. = 0.743) and also that excessive phone use negatively affects their overall mood and emotional well-being (mean = 3.54, std. dev. = 0.825). The respondents undecided on whether they find it challenging to relax and unwind after spending time on their phone (mean = 3.35, std. dev. = 0.129) and disagreed that their phone use leads to a decrease in their ability to focus and concentrate (mean = 2.08, std. dev. = 0.519).

Table 3

Phone Addiction and Behavioral Dysfunctions

Phone addiction and behavioral dysfunctions	Mean	Std. dev.
My phone use has led to errors or mistakes in my work at times.	3.76	0.624
Phone addiction causes disruptions during meetings or important work discussions.	4.05	0.421
I have engaged in personal phone activities (e.g., social media) during work hours.	4.51	0.533
My phone use has interfered with my interactions and collaborations with colleagues.	3.30	0.799
Phone addiction can result in missed or incomplete tasks at work.	4.26	0.724

The respondents strongly agreed that they have engaged in personal phone activities (e.g., social media) during work hours (mean = 4.51, std. dev. = 0.533). They agreed that phone addiction can result in missed or incomplete tasks at work (mean = 4.26, std. dev. = 0.724), that phone addiction causes disruptions during meetings or important work discussions (mean = 4.05, std. dev. = 0.421), and that their phone use has led to errors or mistakes in their work at times (mean = 3.76, std. dev. = 0.624). The respondents were indifferent on the sentiment that their phone use has interfered with their interactions and collaborations with colleagues (mean = 3.30, std. dev. = 0.799).

Table 4

Phone Addiction and Organization Performance

Phone addiction and organization performance	Mean	Std. dev.
Excessive phone use negatively impacts employees' focus and attention on their work tasks.	3.97	0.102
Employees' phone addiction hinders effective communication and collaboration within the organization.	4.00	0.442
Employees' phone use during work hours interferes with their ability to effectively communicate with clients or customers.	4.10	0.519
Employees' phone addiction leads to disruptions during meetings or important work discussions.	3.94	0.366
Phone addiction contributes to a decrease in employees' interactions and cooperation with colleagues.	3.95	0.151
Phone addiction among employees affects the overall efficiency of work processes within the organization.	4.11	0.212

The respondents agreed that phone addiction among employees affects the overall efficiency of work processes within the organization (mean = 4.11, std. dev. = 0.212), employees' phone use during work hours interferes with their ability to effectively communicate with clients or customers (mean = 4.10, std. dev. = 0.519), and employees' phone addiction hinders effective communication and collaboration within the organization (mean = 4.00, std. dev. = 0.442). Excessive phone use negatively impacts employees' focus and attention on their work tasks (mean = 3.97 std. dev. = 0.102). The respondents further agreed that phone addiction contributes to a decrease in employees' interactions and cooperation with colleagues (mean = 3.95, std. dev. = 0.151) and employees' phone addiction leads to disruptions during meetings or important work discussions (mean = 3.94, std. dev. = 0.366).

Table 5

Regression Model Summary

Model	R	R square	Adjusted R square	Std. error of the estimate		
1.000	0.805a	0.648	0.633	2.026		
Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	219.438	3	73.1459	17.754	0.002
	Residual	552.080	134	4.12		
	Total	771.518	137			
		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
	(Constant)	1.544	0.272		5.676	0.002
	Phone addiction distress	-0.658	0.134	-0.666	-4.910	0.001
	Psychological and social emotional distress	-0.521	0.144	-0.551	-3.618	0.002
	Behavioral dysfunctions	-0.603	0.129	-0.602	-4.674	0.002

Multiple linear regression analysis was used to determine the significance of the relationship between the dependent variable and all the independent variables pooled together. From the findings in the model summary table, the value of adjusted R squared was 0.633 indicating that there was variation of 63.3% on organization performance due to variations in phone addiction distress, psychological and social emotional distress and behavioral dysfunctions at the 95% confidence level. This show that 80.5% deviation in organization performance could be ascribable to phone addiction distress, psychological and social emotional distress and behavioral dysfunctions.

From the ANOVA statistics in table above, the processed data, which is the population parameters, had a significance level of 0.002 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%. It also indicates that the model was statistically significant.

From the regression analysis, a unit rise in phone addiction distress would lead to a decrease in organization performance by 0.658 units. A unit increase in psychological and social emotional distress would lead to a decrease in organization performance by 0.521. A unit increase in behavioral dysfunctions would lead to a decrease in organization performance by 0.603 units. At 5% level of significance and 95% level of confidence, all the variables were significant ($p < 0.05$).

Conclusion

The study's findings highlight the pervasive influence of phone addiction distress on employees in SMEs. The prevalence of frequent phone checking, engagement with social media, and personal phone activities during work hours suggests a significant challenge. The connection between phone addiction and emotional well-being underscores the potential negative consequences on employees' mental health. Additionally, the association between phone addiction and behavioral dysfunctions, as well as its impact on organizational performance, underscores the need for addressing this issue within the workplace.

Recommendations

Organizations should conduct awareness campaigns and provide training on healthy phone use to help employees recognize and manage phone addiction distress. SMEs should implement clear and reasonable guidelines on phone use during work hours to prevent excessive usage and its associated negative consequences. There is need to establish support programs that offer counseling or resources for employees struggling with phone addiction or related emotional distress. SMEs should encourage a healthy work-life balance by promoting breaks, outdoor activities, and mindfulness practices that can help reduce phone dependency. There also a need for regularly assessment of the prevalence of phone addiction distress and its effects on organizational performance to adapt and refine strategies over time.

References

Alton, L., Ciechanska, K., & Meikle, N. (2014). Exploring the impact of social media on youth mental health: A systematic review. *Journal of Adolescence, 40*(1), 1-14.

Auter, P. J. (2007). Portable social groups: Willingness to communicate, interpersonal communication gratifications, and mobile phone use among young adults. *Int J Mob Commun, 5*, 139-156.

Brand, M., Young, K., & Laier, C. (2014). Prefrontal control and internet addiction: A theoretical model and review of neuropsychological and neuroimaging findings. *Front. Hum. Neurosci., 8*, Article 375.

Caplan, S. E. (2010). Theory and measurement of generalized problematic internet use: A two-step approach. *Comput. Hum. Behav., 26*, 1089-1097.

Csikszentmihalyi, M. (1992). *Flow: The psychology of optimal experience.* New York, NY: Harper & Row.

Davey, S., & Davey, A. (2014). Assessment of smartphone addiction in Indian adolescents: A mixed method study by systematic-review and meta-analysis approach. *J Prev Med, 5*(12), 1500-1511.

Davis, R. A. (2001). A cognitive-behavioral model of pathological internet use. *Comput. Hum. Behav., 17*, 187-195.

Fahamu. (2007). Mobile phones, human rights and social justice in Africa. Retrieved from http://www.kiwanja.net/database/document/report_fahamu_mobile_activism.pdf (accessed on 2008-03-09)

Hiley, C. (2023). *Telecoms UK Mobile phone statistics: Mobile phones and stats report 2023.*

Koo, H. J., & Kwon, J. H. (2014). Risk and protective factors of internet addiction: A meta-analysis of empirical studies in Korea. *Yonsei Medical Journal, 55*(6), 1691-1711.

Kothari, A. (2004). *Corporate governance in India*. New Delhi, India: Tata McGraw-Hill.

Kwang, H., Woo, H. J., & Kim, J. K. (2012). Self as an antecedent of problematic mobile phone use. *Int J Mob Commun, 10*, 65-84.

Kwon, M., Lee, J. Y., Won, W. Y., Park, J. W., Min, J. A., Hahn, C. … Kim, D. J. (2013). Development and validation of a smartphone addiction scale (SAS). *PloS One, 8*(2), e56936.

Lanaj, K., Chang, C., & Johnson, R. E. (2014). Regulatory focus and work-related outcomes: A review and meta-analysis. *Psychological Bulletin, 140*(2), 1-44. doi:10.1037/a0033960

Lim, J. (2018). The effect of adult smartphone addiction on memory impairment: Focusing on the mediating effect of executive function deficiencies. *J. Digit. Converg., 16*, 299-308.

Lin, C. H., Lin, C. L., Wu, C. H., & Chiu, C. K. (2015). Understanding the influence of workplace spirituality on turnover intention: Exploring the mediating role of employee engagement. *Journal of Business Ethics, 129*(2), 1-14. doi:10.1007/s10551-014-2127-6

Lopez-Fernandez, O., Honrubia-Serrano, L., Freixa-Blanxart, M., & Gibson, W. (2014). Prevalence of problematic mobile phone use in British adolescents. *Cyberpsychology, Behavior, and Social Networking, 17*(2), 91-98. doi:10.1089/cyber.2012.0260

Moretta, T., Buodo, G., Demetrovics, Z., & Potenza, M. N. (2022). Tracing 20 years of research on problematic use of the internet and social media: Theoretical models, assessment tools, and an agenda for future work. *Compr. Psychiatry, 112*, 152286.

Mugenda, O. M. (2003). *Research methods: Quantitative and qualitative approaches*. Nairobi, Kenya: ACTS Press.

Mwambari, D. A., & Gupta, H. (2020). Problematic smartphone use and psychological well-being among university students in Kenya: A mediation analysis. *Journal of Social Science Studies, 7*(2), 39-51.

Nyaigoti, E. M., & Kaguma, L. (2021). Smartphone addiction and sleep disturbances among students in Kenya: A cross-sectional study. *Journal of Addictive Diseases, 39*(1), 49-60.

Oulasvirta, A., Rattenbury, T., Ma, L., & Raita, E. (2012). Habits make smartphone use more pervasive. *Personal and Ubiquitous Computing, 16*(1), 105-114.

Pedrero Pérez, E. J., Rodríguez Monje, M. T., & Ruiz Sánchez De León, J. M. (2012). Mobile phone abuse or addiction. A review of the literature. *Adicciones, 24*(2), 139-152.

Rubio, G., Rodríguez de Fonseca, F., & De-Sola Gutiérrez, J. (2016). Cell-phone addiction: A review. *Frontiers in Psychiatry, 7*, 175. doi:10.3389/fpsyt.2016.00175

Shah, A. (2007). *The Yale Journal of Public Health*. Retrieved from http://www.cdc.gov/news/2007/03/images/mobiletech.pdf (accessed on 2008-01-22)

Virki, T. (2007). Demand for cell phones in Asia and Africa. Retrieved from http://www.reuters.com/article/idUSL2519802620071025 (accessed on 2008-02-09)